



## TRTR-IGORR 2005



Joint Meeting  
Of  
The National Organization of Test, Research, and Training Reactors  
And  
The International Group on Research Reactors



September 12-16, 2005  
Holiday Inn  
Gaithersburg, MD

Sponsored by:

U.S. Department of Commerce  
Technology Administration  
National Institute of Standards and Technology





## JOINT MEETING



of the  
**National Organization of Test, Research, and Training  
Reactors**  
and the  
**International Group on Research Reactors**  
**September 12-16, 2005**  
at the **Holiday Inn, Gaithersburg, MD**  
Sponsored by the  
**National Institute of Standards and Technology**

### *Message from the Chairmen:*

*Welcome to the first ever joint meeting of TRTR and IGORR. Members of the research reactor community will gather in Gaithersburg, Maryland, USA to discuss recent developments at our facilities, to learn about design and construction of new facilities, and to meet with NRC, DoE, and other officials and our many corporate sponsors. We have planned an extensive, exciting, and informative conference for all participants. The following information will be helpful in obtaining details about the conference. Please keep checking the website for updates and new information. Please pass on this information to colleagues and friends. Information will also be provided by email through the trtr email server. Please subscribe by sending a message with the subject 'subscribe TRTR' to [majordomo@wpi.edu](mailto:majordomo@wpi.edu).*

[Registration Form](#)  
[Meeting Site and hotel reservation \(Holiday Inn,  
Gaithersburg, MD\)](#)  
[TRTR-IGORR Program](#)  
[Meeting Exhibitors and Sponsors](#)  
[Non-Technical Activities and Spouses/Guest Program](#)  
[Local Information \(travel directions, sightseeing, etc.\)](#)

[Call for Papers](#)  
[Meeting Contacts](#)  
[NIST Information](#)  
[TRTR Information](#)  
[IGORR Information](#)

**Note to non-U.S. attendees :** Make your VISA application as soon as possible! It can take months to obtain a travel visa to the United States.

### **Important deadlines:**

**15 July:** Submit your abstract.

**14 August :** Make your hotel registration in order to get our negotiated rate.

### **Special notice:**

On 9 September 2005 there will be an all-day symposium, “Neutron Research at NIST, a Symposium honoring Mike Rowe and Jack Rush”. Further details can be obtained at <http://www.ncnr.nist.gov/nran>.

Last updated: 16 June 2005





## REGISTRATION INFORMATION



TRTR-IGORR Joint Meeting, Holiday Inn, Gaithersburg, MD  
301 948-8900  
September 12-16, 2005

Participants are encouraged to register as soon as possible by submitting the [pdf registration form](#) via fax or mail. The registration fees can be paid by check or credit card as indicated on the registration form. The registration fee for participants is \$350, which includes all meals, banquets, and meeting activities. The fee for each spouse/guest is \$50.

Send registration form and payment to:

TRTR-IGORR  
1903 Bishop Castle Dr.  
Olney, MD 20832  
301 570-2119 fax  
[trtr-igorr@simelectronics.com](mailto:trtr-igorr@simelectronics.com)

### **Additional information:**

If you require a special menu or have any food allergies please describe these on the registration form. We will try to accommodate you.

Those taking the Friday NIST tour will need to complete a tour registration and have a government issued photo I.D. in their possession.

**Non-U.S. residents should make their VISA application as early as possible.** The process of getting a visa for travel to the U.S. can take months to complete!

For guaranteed hotel space and rates make your reservation by 14 August 2005.

Holiday Inn Reservations: 301 948-8900, 1-800-HOLIDAY

[www.higaithersburg.com](http://www.higaithersburg.com)





## REGISTRATION FORM TRTR-IGORR Joint Meeting

Holiday Inn, Gaithersburg, MD 301 948-8900

September 12-16, 2005



Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Institution/Company: \_\_\_\_\_

Address: \_\_\_\_\_

Postal code/ZIP code: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ FAX: (\_\_\_\_) \_\_\_\_\_

Email: \_\_\_\_\_

Registration (includes breakfasts, lunches, evening outings):	Total
Participant \$350 (U.S.)	_____
Companions/guests \$50 each number _____	_____
Names: _____	Total: _____

Method of Payment:

☐ Check (payable to TRTR) enclosed  
☐ Please debit my VISA ☐ Mastercard ☐  
by \$ \_\_\_\_\_

Send registration form and payment to:  
TRTR  
1903 Bishop Castle Dr.  
Olney, MD 20832  
301 570-2119 fax  
[trtr-igorr@simelectronics.com](mailto:trtr-igorr@simelectronics.com)

Card Number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

CCV Number (3 digit code on back of card): \_\_\_\_\_

Cardholder name (exactly as on card): \_\_\_\_\_

Billing address of cardholder: \_\_\_\_\_

Daytime phone number of cardholder: \_\_\_\_\_

I and/or my spouse/guest will attend:

<input type="checkbox"/> Tuesday evening banquet at Smokey Glen Farm	Total No. _____
<input type="checkbox"/> Wednesday evening cruise on the Potomac	Total No. _____
<input type="checkbox"/> Thursday evening banquet at Charles Town (racetrack)	Total No. _____
<input type="checkbox"/> Friday afternoon tour of NIST Facilities	Total No. _____
<input type="checkbox"/> Spouse/guest tours	Total No. _____

**For tours of NIST, separate registration at the meeting and a government issued photo I.D. are required.**

If you require a special menu or have any food allergies please describe these. We will try to accommodate you.

Holiday Inn Reservations: 301 948-8900, 1-800-HOLIDAY [www.higaithersburg.com](http://www.higaithersburg.com)





## Meeting Site



The main housing and meeting site is the Holiday Inn, Gaithersburg, MD ([www.higaithersburg.com](http://www.higaithersburg.com))

Reservations must be made no later than 14 August 2005 in order to take advantage of the negotiated bulk rate for attendees (\$99/day, plus taxes) and the assured availability. Reservations may be made by phone (301 948-8900, 1-800-HOLIDAY) or by Internet (use the meeting code 'TRT'). Make certain you identify TRTR as your meeting to get the negotiated special room rate. Please make your reservation AS EARLY AS POSSIBLE. [Download the pdf file](#) for the hotel reservation form.

See the [Holiday Inn](#) web site for specific services information. Note that local travel service is provided, e.g., to METRO and local shopping, on a reservation basis but this does not include transportation to the local airports.

See the [Travel page](#) for information on local travel.  
If we fill the Holiday Inn additional facilities are nearby.



**Hotel Registration Form (TRTR-IGORR)**  
Holiday Inn, Gaithersburg  
2 Montgomery Village Ave., Gaithersburg, MD 20879, USA  
301 948-8900, Fax: 301 926-6056, 1-800-HOLIDAY  
[www.higaitersburg.com](http://www.higaitersburg.com)



Last Name \_\_\_\_\_ First Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_ email \_\_\_\_\_

\_\_\_ Smoking \_\_\_ Non-smoking

Rate: US\$99 (single or double), plus taxes.

All reservations must be received by August 14, 2005. All reservations must be guaranteed by credit card or deposit. Mention TRTR when making reservations by phone.

For on-line reservations use [www.higaitersburg.com](http://www.higaitersburg.com). Use meeting code TRT.

Arrival date \_\_\_\_\_

Departure date \_\_\_\_\_

Form of payment:

\_\_\_ Check enclosed (payable to Holiday Inn, Gaithersburg)

\_\_\_ Credit Card: type \_\_\_\_\_

Number \_\_\_\_\_

Expiration date \_\_\_\_\_



## Call for Papers (and Sample Abstract)

Robert E. Williams  
National Institute of Standards and Technology  
Gaithersburg, Maryland  
[robert.williams@nist.gov](mailto:robert.williams@nist.gov)

The chairmen of TRTR-2005 and IGORR-10 invite members of the research reactor community to participate in the first joint meeting of our organizations September 12-16, 2005 in Gaithersburg, Maryland. Abstracts of contributed papers for the technical and poster sessions are now being accepted. A bound volume of these abstracts will be included with the registration materials at the meeting.

**Organization:** Our program allows three and a half days for technical sessions. A few special sessions will be included, such as the sessions presented by NRC and DOE, and a tribute to the 50<sup>th</sup> anniversary of the Penn State reactor. Additional technical sessions will feature papers in the following areas:

- New Research Reactor Projects
- Reactor Upgrades and Major Changes
- Secondary Neutron Sources (Cold, Hot Sources, etc.)
- Research Reactor Utilization
- Fuel Cycle and Fuel Developments for Research Reactors (invited papers only)
- Safety, Licensing, and Decommissioning

Any topic of interest to the research reactor community will be considered. At times, there will be parallel sessions, and a poster session or two, depending on the number of abstracts submitted.

**Submitting Abstracts:** Abstracts must be in English. Please submit them electronically to the Program Chairman at the e-mail address above. Attach the abstract to an e-mail indicating your preference of an oral presentation in one of the above mentioned sessions, or a poster presentation. ***The deadline for submittal is July 15, 2005.*** Abstracts received after the deadline will be considered as time allows.

Abstracts must contain the following information: title and author's full name(s), author's institution(s) and address, and the e-mail address of the presenter. Please limit abstracts to one page (8.5 x 11 inches, 1-inch margins); the full papers will be included in the conference proceedings. If possible, submit a Word document in 12-point Times New Roman font. The format of this page can serve as a guide (but not so long).

**Oral Presentations:** Talks will be limited to a total of 20 minutes, including 3-4 minutes for discussion. Plan to speak about 15-17 minutes. Times may be adjusted in special sessions to accommodate invited speakers.

Projection equipment for PowerPoint presentations will be available to speakers, as will overhead projectors.

Presenters will be notified as soon as possible, but no later than mid August about the preliminary program.

**Final Papers:** Present plans are to produce a CD version of the conference proceedings, similar to those of previous meetings, which will be distributed to all participants following the meeting. All papers will be included in the proceedings, regardless of their designation as "TRTR" or "IGORR" submittals.

The proceedings constitute a permanent record of the meeting. For example, the proceedings of the previous three meetings are accessible at [www.igorr.com](http://www.igorr.com) . Please make every effort to submit your paper so that all can be included.

Final papers should also be submitted electronically, as Word documents, like the abstracts, but limited to 8 pages, please. Speakers may also/alternatively submit electronic (PowerPoint) versions of their presentations. ***The deadline for final papers is September 16, 2005, the close of the meeting.***

For additional information, or time, or assistance with abstracts and papers, please contact the TRTR-2005/IGORR-10 program chairman:

Robert E. Williams  
National Institute of Standards and Technology  
100 Bureau Drive, Stop 8561  
Gaithersburg, MD 20899-8561  
USA

Phone: 301-975-6876  
Fax: 301-975-8800  
[robert.williams@nist.gov](mailto:robert.williams@nist.gov)







## TRTR-IGORR Preliminary Program



### Technical Program

#### Monday September 12, 2005

Registration  
Standards Committee Meeting  
TRTR Executive Committee Meeting  
Exhibits setup and evening exhibits  
Evening Reception for all participants

#### Tuesday September 13, 2005

Registration continued  
Introduction  
- Chair, TRTR  
- Chair, IGORR  
Welcome - Director of NIST  
Technical Sessions  
Poster Sessions  
Exhibits  
Keynote Speakers  
Banquet at Smokey Glen Farm

#### Wednesday September 14, 2005

Registration Continued  
NRC Day, Chair. Chief, Research and Test Reactors  
Section-US NRC  
Technical Sessions  
Poster Sessions  
Exhibits  
Keynote Speakers  
Banquet- Cruise on the Potomac-Washington DC

#### Thursday, September 15, 2005

Registration Continued  
  
Morning  
DOE Day – Chair-Director, Office of Nuclear Energy,  
Science, and Technology-US DOE  
Technical Sessions  
Poster Sessions  
Exhibits  
Keynote Speakers  
  
Afternoon (Special Session)  
In honor of The Pennsylvania State University Breazeale  
Reactor 50<sup>th</sup> Anniversary  
Chair-Director, Penn State Breazeale Reactor  
Technical Sessions  
Poster Sessions  
Exhibits  
Keynote Speaker, - Vice President for Research, Penn-  
State  
Banquet: An Evening at Charles Town, West Virginia

#### Friday September 16, 2005

Technical Sessions  
Poster Sessions  
Exhibits  
Tour NIST Facilities

#### Invited Keynote Speakers:

The Honorable Samuel W. Bodman, Secretary of Energy (invited)  
The Honorable Nils J. Diaz, Chairman, US Nuclear Regulatory Commission.  
The Honorable Arden L. Bement, Director, National Science Foundation  
The Honorable Dale Klein, Assistant to the Secretary of Defense for Nuclear, Biological, and Chemical Programs.  
The Honorable Luis A. Reyes, Executive Director, US Nuclear Regulatory Commission

*All conference days include breakfast, lunch, and two refreshments breaks. Three evening banquets and the welcome reception are included in the registration fee.*

### Spouse/Guest Program

A Spouse/Guest Program is being arranged that includes a tour of Washington, DC sites, a tour of NIST, and other interesting activities.





## Activities



### **Monday, Sept 12: Evening Reception at the Holiday Inn (Sponsored by NAC International)**

Meet your colleagues and friends! Renew acquaintances. Make new ones! Fabulous food and drink! Live music! A great start of what will be a memorable meeting.

### **Tuesday, Sept 13: Banquet at Smokey Glen Farm**

Smokey Glen features barbequed foods (steaks, ribs, chicken), an outdoor, heated pavilion in a pastoral setting, music, dancing, and various outdoor activities ( horse shoes, volleyball, putt-putt, etc.) Dress informally. The weather typically is pleasantly cool.

### **Wednesday, Sept 14: Banquet and Cruise on the Potomac-Washington DC**

An event not to be missed. Cruise in climate controlled luxury. A delectable meal. Lively music and floor show. Panoramic views of historic sights and monuments along the Potomac and waterfront views of Washington and Virginia.

### **Thursday, Sept 15: Banquet and Evening at Charles Town, West Virginia**

Mix with the racing and sporting crowd. Outstanding buffet. Dine in the Skyline Terrace, a glass enclosed setting with a great view. Try your hand at Monte-Carlo type randomized processes.

### **Friday, Sept 16: Technical Tour of NIST facilities**

*All conference days include breakfast, lunch, and two refreshments breaks.*



## Spouse/Guest Program



Breakfast will be served each day in the Potomac Room.

**Tuesday, Sept 13:** Shopping at the Washingtonian Center and/or the Lakeforest Mall, 10 a.m. to 2:30 p.m. The Washingtonian Center features small shops, outdoor walking area, and many cafe's and restaurants located near and around a small lake. It is a delightful example of an 'old time' shopping and strolling experience. Lakeforest Mall, located within walking distance of the meeting hotel, features a wide variety of department stores and specialty shops, excellent restaurants, and several adjacent discount shopping venues.

**Wednesday, Sept 14:** Highlights of Washington, D.C. 9 to 3 (including travel time)

Your professional guide will take you to the White House (photo opportunity), the U.S. Capitol, and the National Mall. Included will be visits to the Lincoln, Jefferson, FDR, Korean, and Vietnam Memorials and the Washington Monument. These are all framed by the tidal basin with its ring of Cherry trees, the Potomac River, and the Lincoln reflecting pond.

**Thursday, Sept 15:** Smithsonian Museum, Washington, D.C. 9 to 3 (including travel time)

Conducted by a professional guide see the Air and Space Museum, the National Gallery of Art, and the American Museum of History. The limited time available makes this a tour of the highlights, i.e., the very best and most delectable exhibits.

**Friday, Sept 16:** In the morning visit NIST, some of its labs, the NIST museum, and grounds (including the Isaac Newton apple tree). The award winning architecture of the NIST facilities is worth seeing for itself, but seeing examples of activities that affect all aspects of our lives is an educational experience not to be missed. Lunch will be provided in the Executive Dining Room. The afternoon visit to the NIST Center for Neutron Research and the NIST reactor is a once-in-a-lifetime opportunity to see a world-class research facility and to learn about techniques that are virtually unique and will be the basis for future developments in industry and medicine.

Note: All tours are subject to program adjustments to meet time and access constraints and weather conditions.



## Sponsors/Exhibitors



*This is a partial list of organizations and institutions that have generously contributed towards the conference. TRTR and IGORR greatly appreciate their participation. Please acknowledge and support each of them.*

### Sponsors

National Institute of Standards and Technology

U.S.Department of Energy

Aerotest

### Banquet Sponsors/Exhibitors

Areva Group

Contact: Mrs. Corinne Figueras [corinne.figueras@technicatome.com](mailto:corinne.figueras@technicatome.com)

CEA Group

Contact: Alain Ballagny 33(0) 1 69 08 51 68 [Alain.ballagny@cea.fr](mailto:Alain.ballagny@cea.fr)

### Reception Sponsor/Exhibitor

NAC International

Contact: Kent Cole 678-328-1311 [kcole@nacintl.com](mailto:kcole@nacintl.com)

### Day Event Sponsors/Exhibitors

BWXT

Contact: Dayna G. Mays 434-522-6061 [dgmays@bwxt.com](mailto:dgmays@bwxt.com)

IST (Imaging and Sensing Technology Corp.)

Contact: Kathleen Healy 607-562-4360 [khealy@istcorp.com](mailto:khealy@istcorp.com)

Morgan, Lewis & Bockius LLP

Contact: Thomas C. Poindexter 202.739.5348 [Tpoindexter@MorganLewis.com](mailto:Tpoindexter@MorganLewis.com)

Photonis

Contact: Pascal Blanquer 33 5 55 86 37 07 [p.blanquer@photonis.com](mailto:p.blanquer@photonis.com)

Thermoelectron Corporation (Gamma-Metrics)

Contact: Clark Artaud 858-452-9250 [clark.artaud@thermo.com](mailto:clark.artaud@thermo.com)

## Exhibitors

### Canberra

Contact: Tammy Pattison 203-238-2351 [tpattison@canberra.com](mailto:tpattison@canberra.com)

### Duratek

Contact: David B. Grayewski 865-425-4582 [dgrayewski@duratekinc.com](mailto:dgrayewski@duratekinc.com)

### General Atomics

Contact: Roy Ray 858-455-3157 [roy.ray@ga.com](mailto:roy.ray@ga.com)

### Landauer

Contact: Karen Kalman 708-755-7011 [sales@landauerinc.com](mailto:sales@landauerinc.com)

### Scientech Inc.

Contact: Barbara E. Bastenback 860-210-3007 [bbastenback@scientec.com](mailto:bbastenback@scientec.com)

### Transpire Inc.

Contact: Gregory A. Failla 253-857-1058 [greg@radiative.com](mailto:greg@radiative.com)

**Disclaimer: Neither NIST nor any agency of the federal government endorses or approves these commercial entities.**



## Travel Information



**Information on local sightseeing, local travel, maps, etc may be viewed at the following web sites:**

Local information provided by NIST ( [www.nist.gov/public\\_affairs](http://www.nist.gov/public_affairs) )  
Go to Visitor Information (Gaithersburg)

Local information provided by the Holiday Inn ( [www.higaithersburg.com](http://www.higaithersburg.com) )

Tourism sites for Montgomery County and Maryland:

<http://www.montgomerycountymd.gov/cultmpl.asp?url=/content/culture/tourism.asp>

<http://www.mdisfun.org/>

[www.visitmontgomery.com](http://www.visitmontgomery.com)

And for Washington, D.C.:

[www.washington.org](http://www.washington.org)

<http://www.hellowashingtondc.com/>

<http://dcpages.com/Tourism/>

<http://www.dcregistry.com/sights.html>



### Airports:

Gaithersburg, MD is a suburb of Washington, DC. The Washington metro area is served by three major airports (Reagan Washington National, Washington Dulles International, and Baltimore-Washington International). All are equally convenient in terms of surface travel time to Gaithersburg. For those who would like to experience subway transportation Reagan National connects to Gaithersburg (using the Shady Grove Station on the RED line) via the [Washington Metro](#) subway.

Airport information is available at:

BWI - Baltimore-Washington International: <http://www.bwiairport.com/>

DCA – Ronald Reagan Washington National: <http://www.mwaa.com/national/index.htm>

IAD – Washington Dulles International: <http://www.mwaa.com/dulles/index.htm>

Those traveling via private air can utilize the Montgomery Airpark, which is located just outside Gaithersburg. Be aware that this airport is limited to planes no larger than small Lear jets. So those with private 727's will need to use the major airports.

### Train:

Those traveling by train can transfer at Union Station to the Metro and use that to travel to Gaithersburg (about a one hour ride on Metro). The Gaithersburg Metro station (Shady Grove station, the last station on the RED line) is about 5 minutes from the Holiday Inn by taxi. Prior arrangements with the Holiday Inn (301 948-8900) can have the Holiday Inn shuttle meet you at this station.

## Driving directions:

From the *Ronald Reagan Washington National* airport: Take the George Washington Memorial Parkway north to I-495 (Maryland), to I-270 north to exit 11. The Holiday Inn is located about 500 m east of Rt 270 at the intersection of Quince Orchard Rd. (which becomes Montgomery Village Ave) and Rt 355 (Frederick Rd) on the northeast corner, with access from both streets.

From *Dulles International*: Take the Dulles access road (non-toll) to the I-495 exit (which puts you on a local access road), move immediately to the right lane and take I-495 North (Baltimore), to I-270 North to Exit 11. The Holiday Inn is located about 500 m east of Rt 270 at the intersection of Quince Orchard Rd. (which becomes Montgomery Village Ave) and Rt 355 (Frederick Rd) on the northeast corner, with access from both streets. Caution: If you miss the exit from the access road for I-495 you are stuck on what becomes I-66 for some distance, with poor choices for correcting the error.

From *BWI*: Take I-195 to I-95 South, to I-495 West, to I-270 North, to Exit 11. . The Holiday Inn is located about 500 m east of Rt 270 at the intersection of Quince Orchard Rd. (which becomes Montgomery Village Ave) and Rt 355 (Frederick Rd) on the northeast corner, with access from both streets.

## By METRO:

The Washington D.C. area is served by an extensive Metro (subway) system. The station serving Gaithersburg is the SHADY GROVE station, the last station on the RED line. Exit the station to your left (west side) for free pickup by the Holiday Inn limo. Prior arrangement (301 948-8900) must be made. Also, it is a short ride if taxi is the preferred option.

## By Taxi:

Taxi cost is about \$45 from Reagan National, \$55 from Dulles, and \$70 from BWI.

## By Limousine:

Make reservations for limo service from among the following:

<a href="http://www.marylandshuttle.com">www.marylandshuttle.com</a>	1-800-590-0000	Nat/Dulles: \$25 (+ \$6 per added person), \$45 exclusive use BWI: \$34 (+ \$6 per added person), \$55 exclusive use
<a href="http://www.supershuttle.com">www.supershuttle.com</a>	1-800-258-3826	Reservations from the airport is not required
<a href="http://www.creative-transportation.com">www.creative-transportation.com</a>	1-866-766-0202	Will meet at the gate or baggage claim.
<a href="http://www.theairportshuttle.com">www.theairportshuttle.com</a>	1-800-776-0323	Only serves BWI (\$63, one way)



## TRTR-IGORR 2005 Meeting Contacts



Technical program, meeting arrangements, exhibitor coordination

Tawfik Raby, TRTR Co-chair ( [raby@nist.gov](mailto:raby@nist.gov) )

Seymour Weiss, TRTR Co-chair ( [syweiss@nist.gov](mailto:syweiss@nist.gov) )

Robert Williams, Program Chair ( [robert.williams@nist.gov](mailto:robert.williams@nist.gov) )

National Institute of Standards and Technology

100 Bureau Dr. STOP 8561

Gaithersburg, MD 20899-8561

Phone: 301 975-6258

Fax: 301 975-8800

Alain Ballagny, IGORR Chair: ( [Alain.Ballagny@cea.fr](mailto:Alain.Ballagny@cea.fr) )

CEA SACLAY

DEN/DSOE Bat. 121

91191 GIF SUR YVETTE Cedex, France

Phone: 33(0) 1 69 08 51 68

Fax: 33(0) 1 69 08 57 95

Registration and financial management

Steve Miller, TRTR Treasurer

1903 Bishop Castle Dr.

Olney, MD 20832

301 295-1290

fax 301 570-2119

[TRTR-IGORR@simelectronics.com](mailto:TRTR-IGORR@simelectronics.com)

General Information

Angie Ellis ( [agellis@nist.gov](mailto:agellis@nist.gov) )

Public and Business Affairs Division

National Institute of Standards and Technology

100 Bureau Dr. STOP 1071

Gaithersburg, MD 20899-1071

Voice: 301 975-3881

Fax: 301 948-2067

Holiday Inn Coordination, shipping receipt coordination, special dietary needs

Debbie Reed 301 948-8900 ( [debbie.reed@bfsaulco.com](mailto:debbie.reed@bfsaulco.com) )







The National Organization of Test, Research, and Training Reactors ([TRTR](#)) represents research reactor facilities across the nation from government, major universities, national laboratories, and industry. TRTR's primary mission is education, fundamental and applied research, application of technology in areas of national concern, and improving U.S. technological competitiveness around the world. TRTR membership includes managers and directors of research reactors, educators, administrators, regulators, and research scientists and engineers.

Begun as a small technical group in the sixties, TRTR quickly grew into a national organization and adopted its current name in 1976. The organization regularly holds an annual conference, hosted by a member institution, to discuss current technical and regulatory issues, advances in research and education, operating experience, and development of new applications in medicine, materials, health and safety, information technology, and environmental sciences, among others. TRTR provides expert technical assistance to member institutions and others through peer reviews, audits, and assessments. It also publishes a quarterly newsletter, which provides the latest information in all areas of interest to the membership. The newsletter is widely distributed within and outside TRTR, in the U.S., and abroad. Information is also provided by email through the trtr email server. Interested persons may subscribe by sending a message with the subject 'subscribe TRTR' to [majordomo@wpi.edu](mailto:majordomo@wpi.edu).

#### TRTR Officers and Executive Committee

Tawfik M. Raby, NIST, Co-Chair  
Seymour H. Weiss, NIST, Co-Chair  
Sean O'Kelly, Univ. of Texas, Chair-elect

Stephen I. Miller, AFRRI, Treasurer  
William G. Vernetson, Univ. of Florida,  
Secretary-Newsletter Editor

John A. Bernard, MIT  
James W. Bryson, Sandia National Lab  
Ralph A. Butler, Univ. of Missouri  
Christopher J. Heysel, McMaster Univ.

Andrew C. Klein, Oregon State Univ.  
Wade J. Richards, NIST  
C. Frederick Sears, Penn State Univ.  
Ray Tsukimura, Areotest



The International Group on Research Reactors ( [IGORR](#) ) represents major nuclear facilities from about 20 countries on all six continents. These facilities are the world leaders in nuclear research and in the application of nuclear technology in many areas, including medical diagnostics and therapies, material science and engineering, energy and energy systems, the environment, development of advanced electronics and instrumentation, and the creation and certification of calibration standards. IGORR was formed in 1989 to "facilitate the sharing of knowledge and experience among those institutions and individuals who are actively working to design, build, and promote new research reactors, or make significant upgrades to existing facilities." Its objectives are to promote contacts between its members, to identify and discuss problems of common interest, to distribute newsletters once or twice a year, and to organize meetings about every two years at host facilities around the world. Meetings typically attract about 100 participants, many of whom manage the most productive research reactors, or industrial and government organizations that support nuclear research. Participants share their experience with commercial products, and vendors have the opportunity to introduce their products throughout the meeting in an exhibitor area. The upcoming joint meeting with TRTR hosted by NIST will be the 10<sup>th</sup> IGORR meeting and the first in the United States since May 1995.

Members of the IGORR Steering Committee represent 16 organizations in 12 countries:

Alain Ballagny, CEA, France IGORR Chairman

Robert Williams, NIST, USA IGORR-10 Program Chair

*Argentina* Jose Lolich, INVAP

*Australia* Kevin Harris, ANSTO

*Canada* Albert Lee, AECL

*China* Yuan Luzheng, CIEA

*France* Jean-Paul Dupuy, Technicatome

*Germany* Tomas Friebe, Framatome-ANP, GmbH

*Germany* Christoph Morkel, TUM

*Indonesia* Hudi Hastowo, RSG-GAS

*Japan* Fumio Sakurai, JAERI

*Japan* Ken Nakajima, Kyoto University

*Korea* Kyung Bae Park, KAERI

*Russia* Kir Konoplev, PNPI

*Taiwan* Li-Fu Lin, INER

*United States* Douglas Selby, ORNL



**National Institute of Standards and Technology**  
Technology Administration, U.S. Department of Commerce

Founded in 1901, [NIST](#) is a non-regulatory federal agency within the U.S. Commerce Department's Technology Administration. NIST's mission is to develop and promote measurement, standards, and technology to enhance productivity, facilitate trade, and improve the quality of life. NIST carries out its mission in four cooperative programs:

The NIST Laboratories, conducting research that advances the nation's technology infrastructure and is needed by U.S. industry to continually improve products and services;

The Baldrige National Quality Program, which promotes performance excellence among U.S. manufacturers, service companies, educational institutions, and health care providers; conducts outreach programs and manages the annual Malcolm Baldrige National Quality Award, which recognizes performance excellence and quality achievement;

The Manufacturing Extension Partnership, a nationwide network of local centers offering technical and business assistance to smaller manufacturers; and

The Advanced Technology Program, which accelerates the development of innovative technologies for broad national benefit by co-funding R&D partnerships with the private sector.



NIST has an operating budget of about \$858 million and operates in two locations: Gaithersburg, MD (headquarters—234 hectare/578 acre campus), and Boulder, CO (84 hectare/208 acre campus). NIST employs about 3000 scientists, engineers, technicians, and support and administrative personnel. About 1800 guest researchers complement the staff. In addition, NIST partners with 1400 manufacturing specialists and staff at affiliated centers around the country.



Among the major facilities to be visited at NIST is the [NIST Center for Neutron Research](#), one of the leading neutron research centers in the world with the foremost research reactor in the United States. Nearly 2000 researchers from over 200 organizations from industry, government, universities and National Laboratories rely on the Center's world-class facilities for vital and diverse programs. The NCNR currently provides 29 experiment stations: four provide high neutron flux positions for irradiation, and 25 are beam facilities most of which are used for neutron scattering research. These stations include depth profiling, a residual stress diffractometer, a powder diffractometer, neutron interferometry, thermal and cold triple axis spectrometers, a spin echo spectrometer, three small angle neutron spectrometers (SANS), three neutron reflectometers, thermal and cold neutron prompt gamma analysis facilities, a disk chopper spectrometer, a filter analyzer spectrometer, and a backscattering spectrometer.

A very special feature of the NCNR is its large volume cold neutron source. A unique liquid-hydrogen moderator produces very low energy neutron beams, which can be used to image and analyze much larger structures than higher energy (e.g., thermal) neutrons. They are used to study large biological molecules, high-tech alloys, high temperature semiconductors, ceramics – the very stuff of modern technology. The NCNR is our nation's only neutron research center that is competitive with the best international facilities. See [www.ncnr.nist.gov](http://www.ncnr.nist.gov) for more examples of this research.

